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"THE SOUL OF THE CITY"

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INTRODUCTION THE SOUL OF CITIES: CREATIVITY AND RESILIENCE IN SUSTAINABLE URBAN FUTURES

Whether willingly or reluctantly, we are moving into an urban world. We are drawn by systemic and societal forces. We are dragged, pushed, and forced into cities by environmental changes, socio-economic shifts, and political transformations. We are also invited, provoked, and seduced by the allure of the city. We come in search of jobs, love, adventure, new beginnings, and meaning—seeking to escape the past or to redefine our future.

We continuously build cities, sometimes through intentional development and construction, and at other times through small, unconscious actions. Someone builds a house, another paints graffiti on a wall, a fair takes shape in a park, and people gather for a concert in the square. Each of these seemingly ordinary acts reflects our belief in the potential of cities. We affirm our faith in the city with every gesture. We say yes to the city. The proverbial quest to cities repeats every time we arrive to a new city. We take a leap of faith, when we arrive to the city and envision – even promise ourselves – that one day, as the song says, we will "be a part of it..."

Cities are a remarkable achievement of humankind. The ways in which communities inhabit and practice space are informed by natural geographical contexts, cultural habits, and shared experiences. The most complex settlements, cities are arguably one of the most significant creations of our species, along with spoken, written, and symbolic languages, and the artistic and scientific explorations that the former have allowed. The collective experience in cities reflects the diversity of experiences of the inhabitants. Communities evolve in the urban space over time and the background, history, and culture provide a rich context to the present inhabitants. Thinking about urban sustainability means thinking about the next generation and creating a continuity of urban space and time.

The implicit manifesto in favor of cities that will unfold over these four volumes of the Next-Generation Cites: An Encyclopedia", is about opportunities and the openness of cities, where individuals have choices of identities or careers, and where they can belong to different communities. This richness of experience has always been part of the fascination and attraction of cities. Cities offer promises, but do not deliver to all in an equitable and inclusive way. The continuing urbanization of the world's cities is often driven by the sheer necessity of surviving and trying to escape poverty.

Imagining ideal cities has been a recurring theme over the centuries, and the development of artificial intelligence might convince some that such tools are providing decisive means for such endeavors. Yet, the "soul" of the city goes far beyond the level of complexity that even artificial intelligence might virtually produce. Cities are complex, messy, resilient, unpredictable, yet precious in a variety of ways. They are a vibrant locus for social, scientific and artistic practice. Their neighborhoods are social tissues pulsating from social interactions that create and continuously re-invent communities. While technology is shaping society and cities, by extension, the livability of human settlements depends mostly on the human connections and on the collective production that cities enable.

Cities are the closest level of government for their inhabitants and often have more ambitious sustainability goals than their nation states. Given more long-term financial support and regulatory power, cities are most likely to solve the multiple sustainability challenges. How can cities as complex systems last and become sustainable? Today's environmental and social crises worsen as cities struggle financially. Especially in the Global South, conditions continue to degrade, while these low consumption cities suffer the most from climate change. The Global South is in the process of finding its own strong voice to address historical inequalities in resource exploitation and greenhouse gas emissions. Building global networks that voice local community concerns and support fair exchange is crucial for a just transition.

Cities and their multiple public, private, and non-for-profit organizations have shown unique capabilities to collaborate and to produce change collectively with participative methods. Many cities are inventing new sustainable futures that address today's challenges. This involves sharing resources, working in social economy enterprises, providing affordable and low emission housing for everybody, and moving towards sustainable transportation modes that work much better in the denser urban environment.

Cities have historically emerged from foundational myths and legends that conveyed the values and principles around which citizens rallied and organized. However, in today's world, where a multitude of implicit and explicit ideologies coexist without a dominant belief system, the values that unify our cities are increasingly elusive. Yet, we can tease out the beliefs and principles in what we witness in the city. Borrowing from Rem Koolhaas's concept, we can seek a "retroactive manifesto" for the city—an exploration of the recurring everyday actions, interactions, and omissions in material practices, artistic expressions, and political engagements that reveal our collective ideas and ideals.

Cities function based on unwritten yet critical rules and practices that often go unexamined. We tend to take these values for granted and may even believe that we exist beyond the influence of any particular ideology. Yet, it is during moments of crisis—such as a pandemic, acts of terrorism, climate-driven disasters, or the threat of war—that we come to recognize what is non-negotiable in our cities. These events illuminate our commitment to openness, self-determination, tolerance, and pluralism.

Despite this recognition, it is challenging to identify the common driving force behind this relentless and seemingly allencompassing urbanization. This inevitably raises a metaphysical question: What is the "soul" of the city? In other words, what are the intangible and immeasurable forces that shape our contemporary urban landscapes? While cities are rife with dilemmas, paradoxes, and contradictions, we can also discern patterns and processes that hint at the spirit of each city. Thus, we must ask: What holds the city together?

In this volume, we explore these questions through the lenses of social science, the arts, and urban policy. By analyzing specific case studies in citizen participation, artistic interventions, design competitions, and urban policy, we aim to uncover the values that drive next-generation cities and urban developments. The selected chapters present a diverse array of best practices in citizen engagement, participatory democracy, and artistic expression in the city. They highlight the importance to create resilient, sociable and livable spaces that create the conditions for learning, collaborating and ultimately engaging in the creation of our own urban realities.

The soul of the city expresses the creativity of its inhabitants, their empathy, and interconnection over time and space. We will discuss city life in public markets, in parks, in festivals, in public spaces, the role of language in multi-cultural neighborhoods, of arts, design and architectural quality to engage and mobilize citizens, of cinematic urban experiences and more.

Cities have had a prominent role within human history and culture. Gaining from the cultural complexity of cities and the collective intelligence they can mobilize, concerted efforts can lead to solutions towards a sustainable, resilient future. We are at a moment in history where we need to take action to regenerate our planet's ecosystems to the benefit of all its human, and other, inhabitants. We believe that cities are the places where such action can crystallize in different expressions but with the same concern for a sustainable future.

PART 1

PARTICIPATORY CITY-MAKING PRACTICES AND THE ROLE OF THE URBAN COMMUNITY

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Dr. De la Llata is an educator, urbanist, and architect. He received his PhD in City and Regional Planning from Cornell University (2014). He has previously taught studios and seminars on urban sociology, public space, and history at Cornell University and the Universities of Tamaulipas and Anahuac (Mexico).

He is the director of the Cities X Citizens project and his research delves into public space design, collaborative creativity, open urban systems, and the study of socio-cultural dilemmas in contemporary cities.

Leveraging insights from fifteen years of teaching, urban design laboratories, and leading art workshops, design improvs, open circles, feedback loops, and architecture charrettes, his works offers insights and methodologies applicable to various fields, including architecture, urbanism, design, music, creative writing, and business. Bridging research, pedagogy, and design practice, he collaborates in the conception of urban places, intentional communities, and sustainable developments.

KEYWORDS

#OPEN URBANISMS #URBAN REGENERATION #CITY MAKING #COMMUNTY ENGAGEMENT

OPEN URBANISMS: CHALLENGES AND OPPORTUNITIES OF CITIES AS BOUNDLESS SYSTEMS

The concept of open urbanisms is rooted in the belief that openness should be a core principle of urban life. It specifically examines the role of both tangible and intangible boundaries in shaping and sustaining urban systems. Open urbanism has the potential to enhance knowledge exchange, empower citizens, and promote democratic engagement within cities. This approach draws on insights from design experiments, creative collaborations, and field studies of various urban systems and spaces. It integrates theories from diverse disciplines including urban planning, philosophy, computer science, social movement studies, and systems theory. The study of these systems, including their online counterparts, has informed the development of open urbanism.



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Bruno received his bachelor's degree in Architecture and Urbanism from the Bennett Methodist University Center and holds a Master's Degree in Architecture and a Professional Degree in Urban Engineering from the Federal University of Rio de Janeiro, Brazil. His master's research focused on the use of informal and interstitial open spaces for leisure and social interactions in low-income suburban neighbor- hoods crossed by railways in Rio de Janeiro. Currently, as a Research Assistant at the Cities by Citizens Research Lab (C^2), he has been working on a project that addresses pressing issues of urban fragmentation and mobility in a site-specific case study in Montreal. Bruno has worked in partnership with different stakeholders in Brazil and abroad on projects that have been exploring the use of geoprocessing tools in spatial analysis of urban environments as well as methodologies and strategies to engage citizens in participatory urban design projects. The focus of Bruno's doctoral research is to investigate how new and emerging digital technologies and media have shaped digital cities by fostering governance, innovation, and citizen participation practices.

KEYWORDS

#TRANSFORMATIVE SMART CITIES #DIGITAL GOVERNANCE #DIGITAL INNOVATION #CITIZEN AGENCY #RIO DE JANEIRO

TOWARD A TRANSFORMATIVE SMART CITY: EXPLORATIONS ON DIGITAL GOVERNANCE, INNOVATION, AND CITIZEN PARTICIPATION IN BRAZIL

The multifaceted development of information and communication technologies (ICTs) has affected every aspect of urban life. This influence has given rise to a dichotomy in the smart city paradigm: on the one hand, there is a drive towards efficiency and innovation shaped by market actors and private corporations, often at the expense of democratic ideals and social justice; on the other hand, grassroots initiatives are harnessing digital tools to advocate for social change and challenge entrenched spatial inequalities. As our study delves into these controversial perspectives, it becomes evident that while the digital infrastructure is undeniably vital, it must be aligned with a broader vision of innovation, sustainability, and inclusivity that transcends mere technical solutions. The ongoing debate about the potential of technology to support a more democratic, equitable, and progressive urban future has been more relevant than ever, particularly in the context of Latin America's rapid urbanization and the need for innovative solutions to tackle growing urban challenges. In this sense, the goal of this study is twofold: (i) to scrutinize the notion of smart city models through a Brazilian perspective, and more specifically, (ii) to explore both state-led and civic-led projects in the city of Rio de Janeiro, where new urban actors, forms of governance, and self-organization practices have been shaped by digital innovation, knowledge exchange, and collective networked actions. By focusing on the social implications of digital technology development, this work aims to be an exploration that underscores the need for a holistic, inclusive, and intersectional approach to urban innovation that captures the essence of our increasingly digitalized world while preserving the unique character of each community and city.



Matthias FRITSCH

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Dr. Fritsch's research interests are social and political philosophy, environmental ethics, and 19th and 20th Century European philosophy (especially German critical theory and deconstruction). He works primarily on justice in relation to history, time, and the environment: what do societies owe the dead, if anything, and what are our normative relations with future generations, especially in relation to political institutions and the environment? While continuing to write on environmental and intergenerational ethics, he is presently working on a monograph on phenomenology and the sources of normative critical theory (SSHRC-funded, 2020-2025). As co-organizer of the award-winning research network Nature-Time-Responsibility, Dr. Fritsch fosters intercultural, comparative-philosophical work on environmental justice.

KEYWORDS

#URBAN COMMUNITY #SHARING SPACE #INTERGENERATIONAL SHARING #DIVERSITY #CITY AND NATURE

SHARING A CITY BY SPACE AND OVER TIME

According to UN data from 2018, "55% of the world's population lives in urban areas, a proportion that is expected to increase to 68% by 2050" (United Nations, 2018). This reason alone might merit philosophical investigations of the intersection of environmental conditions of space, relations, and populations. In addition, ever since Plato at least, the polis—the Greek city state, the space of the political—has been grasped and developed in opposition to outsiders as well as to 'uncivilized' nature. This chapter argues that city dwellers cannot but affirm the sharing of space and time with human and non-human others, inside and outside the city. Since livable city space depends on the extra-urban environment, this affirmation can be elaborated as a specifically urban concept of environmental as well as of inter-generational justice.

We begin by suggesting that environmental space is necessarily shared with other humans and with non-human others on whom we depend. Undercutting the traditional opposition between city and nature, we refer to this necessarily shared aspect of space as livable environment 'the earth': no city without terrestrial context. We then argue that merely living affirms the earth as condition of life. Living beings say 'yes' to the earth and to sharing the earth with others, today and tomorrow, human and nonhuman. City dwellers should convert this affirmation into taking responsibility for the earth as living space for others precisely because they need it and do not get to choose with whom they cohabit.

Further, the affirmation of the earth translates, for city dwellers, into affirming the sharing of city space. We share it by dividing space, but given the longevity of cities, we also share it over time, with preceding and succeeding generations of city dwellers. Cake-cutting provides the model of sharing space by division into parts: each gets their own piece. Applied to a city, we divide it into private sections, such as our homes. But however individualistic our impulses may be, these homes are necessarily connected by shared spaces and infrastructure.

Beyond these two aspects of sharing by division, the private and the communal, we argue for a third aspect, one that we call the 'unpossessable'. The unpossessable is one of the ways in which the city is linked to what we called the earth. Not even the urban community, collectively, can own its city completely. A city is not like a cake that could be consumed in toto; it has what we might call an elemental, unpossessable quality. And this aspect, this chapter suggests, calls for a different model of sharing: not by division (the cake-cutting model), but by taking turns. Taking turns is particularly helpful in understanding how to share a city across time. In addition to sharing space and affirming earth, city dwellers should consider themselves taking turns with the city over generations. Our task today is to give a fair turn to the next generation of inhabitants. Taking turns respects the unpossessable as well as our communal responsibility for the city: we own, not the city itself, but our turn with it.



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Dr. Simon has published widely in the areas of intercultural and translation studies, most recently exploring the cultural history of linguistically divided cities, multilingual cities in situations of post-conflict, and the cities of the former Habsburg empire. Among her recent publications are Translating Montreal: Episodes in the Life of a Divided City (2006), Cities in Translation: Intersections of Language and Memory (2012), and Translation Sites: A Field Guide (2019). She has edited or co-edited numerous volumes, including Translation Effects: The Shaping of Modern Canadian Culture (with K. Mezei and L. von Flotow) (2014). She is a fellow of the Royal Society of Canada and a member of the Académie des lettres du Québec.

KEYWORDS

#LANGUAGE #TRANSLATION STUDIES #LITERARY TRANSLATION #LANGUAGE IN THE URBAN CONTEXT #GENDER IN TRANSLATION

THE TRANSLATIONAL CITY

There are no monolingual cities. The diversity of urban life always includes the encounter and exchange of languages. Conversations on sidewalks and in corner stores, the display of scripts on storefronts and billboards – these are key to the sensory experience of every city. The accents and rhythms of speech, the landscape of signs, they shape the urban environment.

But urban languages do not simply co-exist: they connect, they enter into networks. This means that cities are not only multilingual – they are translational. It is translation that tells which languages count, how they occupy the territory and how they participate in the discussions of the public sphere.

Despite awareness of multilingualism, language interactions are often overlooked as a key to the creation of meaningful spaces of contact and civic participation. Translation is the key to citizenship, to the incorporation of languages into the public sphere. Understanding urban space as a translation zone means taking into the agents and audiences for translation, zones of resistance and misconnection. It means taking into account the specific history and geography of the city, the circulation of language within urban space.

What might a map of the translational city look like? Think of a familiar type of language map – the kind that shows the multitude of languages one might find in a city like New York. It would display a mosaic of colours, indicating the homes or shops where a language is spoken. But what if the map focused instead on crossings and shifts, and on zones where languages meet – places that we could call sites of translation?

This map would be complex. It would have to indicate the dynamics of direction—the from and to of translation. Immigrant and minority languages will be largely translated into the dominant tongues—the stories and texts of migrants given legitimacy in the tongues of their new homes— while translation in the other direction will consist mainly of instructions and advice. Cultural activities (theatres, publishing houses), scholarship (universities), tourism, journalism, health care, economic exchange—these and many other areas of activity would be accompanied by translation.

Every city will have its own map of such zones and sites, resulting from the interactions among its various home and migrant languages, and from the spatial organization of the city – the neighbourhoods, divisions and contact zones, where languages come together or are kept apart. Differing forms of transfer transform the ways in which the "foreign" and the "native" are maintained, the ways in which the horizontal flow of narratives meets the vertical dramas of the past. Creators devise cross-language "leaps" that cause deviations in language traffic and confound customary divisions across tongues. Translation sites are shaped by language traffic, where languages and histories meet – in modes of co-existence, rivalry or conquest.

Languages move across city space and meet in spaces and zones as a result of the forces that drive them. These forces define the direction and intensity of language traffic; they also determine the colour and affect of language exchange, whether translation is cool or warm, a transaction of pure protocol or an expression of urgency. Translation tracks connections between variously entitled communities – those that have historic claims to the territory of the city, as well as those with members who seek to establish claims as migrants, refugees or exiles.

It is not the simple fact of translation which defines the history of these cities but the ways in which language interaction materializes social and cultural relations. All cities, past and present, can be understood as fields of translational forces. In every city, the idioms of successive waves of migrants, administrative authorities, and traders enter into a conversation which write and rewrite the history of the city. From the 19th century multilingual city to today's metropolis, language fractures and connections shape urban territory.

If translation puts pressure on the idea of the city as a single communicational space, the city puts pressure on translation as a clearly bounded concept. Translation becomes a wide category of language exchange that includes translanguaging, multilingual artistic projects, political activism at the junction of global movements, projects of re- naming that symbolically.



Danielle DOUEZ

Writer, editor, and researcher, Workshops & Outreach at Inuit Art Foundation, Canada

Danielle has earned a Master of Arts degree in Philosophy from Concordia University, Canada. Her research examines how feminist and Indigenous epistemologies may aid in addressing anthropocentric ignorance embedded within mainstream environmental narratives in the West. Her broader research interests include transformative justice, kinship, somatics, and borders. For more than ten years she worked in U.S. media covering state governance, education, immigration, and racial injustice. She was born and raised on the lands of the Anacostan in what is now called Washington D.C.

KEYWORDS

#EPISTEMOLOGY #IGNORANCE #ENVIRONMENTAL JUSTICE #ANTHROPOCENTRISM #NARRATIVE

IGNORANCE

Critical responses to Anthropocene narratives have largely focused on deconstructing or reconstructing their narrative content, without close examination of epistemic-narrative practices involved in the process of narrative production. This chapter addresses this gap by posing the question: How can epistemic-narrative practices reduce or eliminate environ- mental domination? To answer, we first draw on Charles Mills' writing on the epistemology of racial ignorance to frame Anthropocene narratives as reproducing anthropocentric ignorance that enables environmental domination. We argue that addressing anthropocentric ignorance requires a disposition toward knowledge that values not only truth, but also building and sustaining epistemic trust between members of epistemic communities. In the second section, we develop a case study based on a narrative building project in Tiohtià:ke to demonstrate the value of specific epistemic narrative strategies to the struggle for environmental justice. Overall, this research contributes to environmental justice, feminist epistemology, and posthumanism by offering concrete practices for decentering the human in dominant Western ways of thinking and storytelling.



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Dr. Rantisi is a Professor of Urban Planning and Economic Geography, she is also co-Chair of the Steering Committee of Planners Network, an international organization of progressive planning academics, practitioners, and organizers that seeks to promote justice and equity in planning practices and publishes the online magazine, Progressive City: Radical Alternatives. Her research interests are centered on the themes of economic restructuring, precarious employment, labor market intermediaries, workforce development and the socio-spatial organization of cultural industries.



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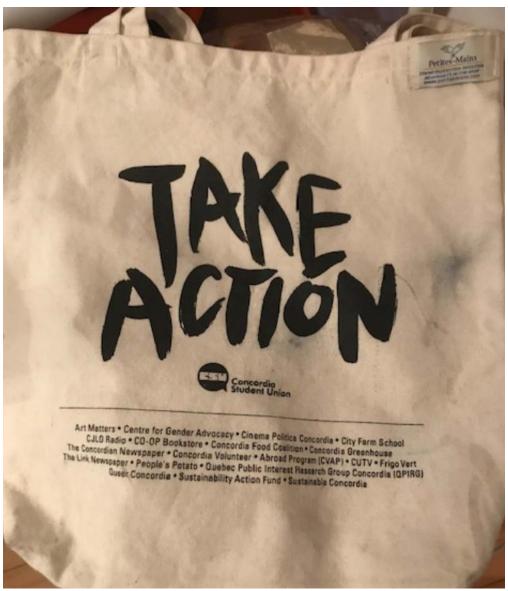
Dr. Leslie's research interests focus on the links between creativity and urbaneconomic development and on the rise of precarious work in creative industries such as art, fashion, crafts and the circus. Most recently she has been exploring the role of labour market intermediaries (such as work integration social enterprises) in training marginalized workers.

KEYWORDS

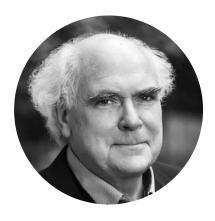
#PRECARIOUS WORK #EMPLOYMENT PRECARITY #IWORKINTE-TEGRATION SOCIAL ENTERPRISES #SOCIAL PROCUREMENT #SOCIAL ECONOMY #SOCIAL INCLUSION

SOCIAL PROCUREMENT AND EMPLOYMENT PRECARITY: FORGING CONNECTIONS OF SUPPORT FOR WORK-INTEGRATION SOCIAL ENTERPRISES (WISEs)

Heralded as a mechanism for social and economic inclusion for marginalized populations who are furthest from the labour market, the 'work integration social enterprise' (WISE) has become a prominent labour market intermediary in Europe and Quebec since the mid-1990s. In the past decade, it has also been appearing in the United States and English Canada. The WISE provides the opportunity for transitional employment, where participants acquire training through work experience, as well as receiving other forms of instruction (e.g. language courses, life skills, and labour rights workshops). The challenge such organizations face, however, is in balancing the social objectives of providing supportive spaces for training with the economic objectives of running a viable business. In the Quebec and Ontario contexts, WISEs have their origins in community or religious associations, but have become increasingly reliant on state funding and the generation of their own revenue to realize their hybrid mandates. To maintain the viability of the organization, forging connections with organizations that share goals of promoting social inclusion becomes essential. In this chapter, we will examine how social procurement practices can support WISEs to attain their goals of economic and social inclusion by drawing on insights from the case of Petites-Mains, a work-integration social enterprise in Montréal that works with immigrant women. In particular, we will look at how connections within the city between the WISE and local public-sector institutions, socially oriented businesses and non-profit organizations promote economic and social benefits. We will also consider the policy implications that an enhancement of the WISE-social procurement connection suggests.



Tote bag made by Petites Mains for Concordia Student Union



David HOWES

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Dr. Howes has conducted field research on the cultural life of the senses in Papua New Guinea, Northwestern Argentina, and the Southwestern United States. His research projects have ranged from exploring the sensory life of things in the Pitt Rivers Museum, Oxford to investigating historic and contemporary trends in multisensory marketing in the USA and Canada (in collaboration with Bianca Grohmann), and from examining judicial constructions of "culture" (in association with René Provost) to designing performative sensory environments (in concert with Chris Salter). David has published 12 books, including The Varieties of Sensory Experience (1991) and Sens- es and Sensation: Critical and Primary Sources (2018), and edited or co-edited 9 thematic issues of journals. He co-founded the journal The Senses and Society (with Michael Bull, Paul Gilroy, and Doug Kahn) in 2006, and has otherwise served as the general editor of the Sensory Formations book series (2003–2009) and the new Sensory Studies book series from Routledge (2015–). In 2021, David was named Distinguished University Research Professor and won the University Research Award. Other distinctions include having been appointed to the Chaire Jacques Leclercq, Université Catholique Louvain, Louvain-La-Neuve, for the Winter term 2018.

KEYWORDS

#SENSORY ETHNOGRAPHY #FESTIVAL SITES #URBAN PARKS #SOCIALITY AND THE SENSES #SENSESCAPES

THE EXPERIENCE OF THE CITY: ON URBAN PARKS, SPAS, FESTIVALS, CASINOS, AND HOW SUCH SITES CONTRIBUTE TO THE BRANDING OF THE CONTEMPORARY METROPOLIS

Sensory studies is an emergent, interdisciplinary field of inquiry. Sensory studies scholars take a cultural approach to the study of the senses and a sensory approach to the study of culture – that is, the senses are treated as both object of study and means of inquiry. With the support of a grant from the social sciences and Humanities research Council of Canada for a project entitled "Explorations in Sensory Design" (ESD), researchers at the Concordia Centre for Sensory Studies have been exploring the sensory experience of the city. Our methodology of choice is sensory ethnography, also known as "participant sensation" (Howes 2019; Lynch, Howes and French 2020). Sensory ethnography is grounded in "the sharing of the sensible" (le partage du sensible) – that is, on trying to "feel along with others" what they experience and making sense of that experience. This chapter will report on our findings to date regarding two aces of the ESD project – namely, festivals and urban parks.

Festival sites are a prime example of ephemeral or performative architecture (Kiib 2007). The festival is a temporally and spatially bounded site, but it has no walls. Festivals are staged by event companies but depend on the co-creation of the event by the participants if they are to succeed. There are "prescribed ways in which to experience intense sensations in order to reap the greatest benefit from the experience" (Johansson and Toraldo 2017: 232) but spontaneity and improvised action are equally essential (Frost 2016; McHugh et al 2012). "Festivalization," whether in the form of light festivals (Lovell and Griffin 2018), music festivals (Szmigin et al 2017), wine festivals (Vannini et al 2010), food festivals (Bentia 2014) or the Edible Film festival with its "ineffable synaesthesia of sight and taste" (Wocke 2017), all create the conditions for "novel sensory and affective transformations" (Edensor and Sumartojo 2018). Festivals contribute in a major way to the "place branding" of cities such as Montréal, which is in fact one of the foremost festival cities in the world. We ask: What are the sensory ingredients of the "joie de vivre" for which the Québécois are so famous (Léger, Nantel and Duhamel 2016)? How is the festive ambience of Montréal co-produced by festival organizers and festival-goers? And, as the city has begun to emerge from the suspension of the senses due to the onslaught of the COVID-19 pandemic, what new forms of sociality and sensation-seeking will emerge?

Urban parks are human-made or conserved natural environments with multiple uses and users, both human and animal. Uses may sometimes conflict, as when recreation competes with conservation or contemplation (Gobster 2001, 2007). How can multiple visions and multiple uses of the urban park be reconciled? What is its role as the city's "green lungs"? What should nature sound like (Schwarz 2013)? And how may we best respect the wild animals and birds who make the park their home and contribute to its value as a site of sensory wellbeing? To take one of the prime sites of our team's attention – namely, Mount Royal Park: How does the sensescape of Mount Royal contribute to the montréalité of Montréal (Klopfer 2009; Moser et al 2019)? How do visitors to the urban park appropriate this space and convert the "affordances" it offers for their own recreational and other purposes? Our team has also set its sights on the Champ des possibles, an area that has recently been reclaimed from its former industrial destination. What possibilities does this unplanned space in process of "rewilding" contain for reinventing the very idea of an urban park?



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Judy has a BSc degree in Agricultural Economics from National Taiwan University and holds an MSc in Urban Environment from the University of Pennsylvania (UPenn) and an MSc in Environment and Sustainable Development from University College London (UCL). Her research at UPenn focused on the economics of urban agriculture while at UCL her research revolved around the commodification of public spaces and urban design. Over the past 10 years Judy has accumulated work experience across the private, public, and civic sector. Judy's research interests lie in urban planning, sustainable urban development, and urban architecture and design. The focus of her doctoral research is on public markets, with an emphasis on public markets as spaces of encounter, cultural exchange, and sociability. Judy is a Research Associate for the Cities X Citizens project research group under the supervision of Professor Silvano De la Llata. She is also a certified LEED Green Associate.

KEYWORDS

#PUBLIC SPACE #URBAN ENVIRONMENT #URBAN PLANNING #URBAN DESIGN #PERFORMATIVE URBANISM #PLACEMAKING #PUBLIC MARKETS #SENSES AND THE CITY #PARTICIPATORY PLANNING #RIGHT TO THE CITY #URBAN AGRICULTURE #URBAN SUSTAINABILITY #SUSTAINABLE DEVELOPMENT #URBAN SPATIAL THEORY #URBAN HISTORY #GREEN BUILDINGS #LEED

PUBLIC MARKETS IN SUSTAINABLE DEVELOPMENT: THE UNITED NATIONS 5P AND THE DOUGHNUT

Marketplaces of today draw upon ancient roots and yet public markets today are about much more than food. The mutually dependent relationship between cities and markets also means that while lending structure to the city, markets still constantly evolve with the city itself. Hence, far more than disposing of an agricultural surplus, markets today are inevitably caught in the wave of urban transformation resulting from the multiple forces of urbanization, globalization, and modernization. Building on such interdependency seen between markets and cities, this chapter identifies two major challenges facing cities today—climate change and retail transformation—and suggests an understanding of the current state of markets through the lens of sustainability and retail transformation, respectively. These changes happening within cities bring forth the need to revisit markets by placing an emphasis on viewing markets as critical public places. Recognizing markets as public place, not solely as spaces for food provisions and its related economic activities, means to examine the market's relationship with the city space.

In the last decade there has been a growing need to respond to the call for sustainable development. In light of this, the 5P sustainability model put forward by the United Nations serves as a well-suited departure point to understand public markets in the context of contemporary cities and sustainable development. People, plants, profits, partnership, and peace make up the 5Ps in question. This chapter examines public markets' potential and strengths within each "P" and reiterates the roles public markets hold in urban sustainability.

To provide multiple dimensions and perspectives of sustainable development, this chapter also looks at the Doughnut model and its interaction with public markets. The concept of Doughnut Economics was first published in 2012 by English economist Kate Raworth. The Doughnut calls for meeting the needs of all people within the means of the living planet. The Doughnut's inner ring depicts the social foundation which sets out the basics of life on which no one should be left falling short. The outer ring represents the ecological ceiling of which humanity should put no further pressure beyond the planetary boundaries. The doughnut comes in between these two boundaries—the doughnut-shaped space lies between the boundaries representing an ecologically safe and socially just space in which humanity can thrive.

Illustrated through the Doughnut, it becomes evident that in remaking urban space to combat the climate emergency, public markets in the city are a powerful force behind cities' sustainable development agenda. Nonetheless, the existence of public markets has been challenged in the last decades by transformations in the retail sector. The increased competition from large distribution centres, supermarkets, grocery stores, and e-commerce are among the ones that challenge not only the presence but also the growth of markets. There are a number of reasons why consumers might favour the new alternatives: supermarkets are perceived by consumers as cheaper, the parking and opening hours make it easier to shop, as well as the better facilities (toilets, lighting, payment by credit card, provision of trolleys etc.) (Panozzo, 2013). As Steel (2009) notes, one does not have to read industry research to know what is happening in the food trade: just glance at one's monthly bank statements.

The functions and transformative roles of public markets rendered through the 5P sustainability model and the Doughnut demonstrate markets' strength in moving toward urban sustainability. However, public markets today face challenges that prompt us to reexamine the interlocking relationship between city, consumption, and sustainability.



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THE MARKET LANGUAGE: PUBLIC MARKETS AS PERFORMATIVE SOCIAL PLACE

Where there are people, there is food consumption; markets arise the moment food is consumed by people who did not produce it. Since antiquity, cities throughout the world have established markets to provide a place for the consumption of food, for both the act of buying (consuming), and that of eating (consuming). It has been widely acknowledged that public markets have been the driving force behind the configuration of cities throughout the urban history.

A public market has traditionally been represented as a civic owned and operated space in the city or town where vendors from the countryside gather and sell fresh food from open stalls. While some public markets still emulate this image, public markets now come in many shapes and settings, offer a wide variety of products and experiences, and are owned and operated by various types of organizations. Today, many different market types have evolved. Though some semantic clarification can be applied to identify or define market type, it should be acknowledged that in classifying the typology of markets, hybrids are more common than pure types. This study emphasizes the publicness of markets rather than their ownership type.

It may be difficult to argue that the most obvious public spaces in cities are streets, squares, gardens, playgrounds, and parks. With the abundance of types of public space found in cities, what sets markets apart from any other type of public space? This chapter aims to provide some insights into this question by exploring markets through a chronological and parallel study of public space and public markets in the last century. Three major paradigm shifts in the study on public space and public markets are identified:

- 1) from modernisation to the rise of the supermarkets (1920-1960);
- 2) from space to place and to the re-conception on public markets (1960-1980s); and 3) the non-place-ness of the marketplace (1990s-current).

Through this historical literature analysis and the identified paradigm shifts, this chapter delineates a marketplace from space of economic transactions to public place and to performative social place. The discussion on the marketplace as performative echoes the relevance of the bodily and the temporal in the studies on urban spaces. Markets are shaped by people as people engaged bodily with the marketplace through various uses and situations. People are shaped by markets as the atmosphere of the marketplace provides both a time-space experiential character and a clue on relational time. These two-way relationships render markets performative. It is these performative constituents seen in public markets which induce sociability. Public markets facilitate not only dynamic sociability (actors-ac- tors; the interactions) but also static sociability (actors-spectators, spectators-objects/ situations; the co-presence). Humans can thus be engaging with any form of interacting agent—whether it be other human agency, objects, or situations. The presence of sociability at public markets further reinforces the notion that public markets are places where social life is seen.

This chapter on public markets is not about what markets are, but what they do; it is neither about how things—that is, markets, people, and the city—should relate but how they did relate. Zukin (2010) says that a city loses its soul when continuity is broken. The continuity Zukin talks about is the sense of authenticity—a continuous process of living and working, a gradual buildup of everyday experience, and the expectation that neighbours and buildings that are here today will be here tomorrow. Public markets, infusing sound, aroma, colour, taste, and physical contact into the city and defining everyday life and experience through interplay of space, senses, and sociability, perhaps could restore this continuity and bring back the city's lost soul.



PART 2

A DESIGN, ARTS, AND CULTURE-BASED APPROACH TO ENVIRONMENTAL AWARENESS

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Dr. Cucuzzela's research falls within the broad domain of design studies where she investigates questions of sustainable design for urban living. Her varied background and expertise in environmental and social life cycle analysis, in green building rating systems, and in design and architecture, allows her to adopt a framework revolving around design's interrelated dimensions of the cognitive-instrumental, the moral-practical, and the aestheticexpressive forms of conception and discourse. She has two main areas of research. In her CoLLaboratoire research, she seeks to understand how the collaborative design and implementation of interactive art-architecture in public urban spaces can contribute to a critique, deeper understanding, and/or embodiment of sustainable urban, professional, community, and even human practices in the long term. In her second area of research, her interests lie predominantly in responsible design practices with a particular interest in understanding the challenges of accommodating sustainability diagnostic or rating tools such as Life Cycle Assessment (LCA) and LEED (Leadership in Energy and Environmental Design), alongside the creative conceptual exploration that takes place during the design process. She addresses the limits of current sustainability assessment tools as a means to gain a complex understanding of social, cultural and environmental repercussions of design practice.

KEYWORDS

#ENVIRONMENTAL ARCHITECTURE #ENVIRONMENTAL ART #ECO-DESIGN #COMMUNICATION #AWARENESS #ENGAGEMENT #DIDACTICISM #DIALECTICISM #PUBLIC SPACE #PLACEMAKING

ECO-DIDACTICISM IN THE CITY AS MEANS FOR ENVIRONMENTAL PUBLIC AWARENESS AND ACTION

The aim of this chapter is to assess a distinctive form of environmentally driven art and design practice that has emerged in urban contexts over the last two decades. This art and design form, which is provisionally named the "eco-art installation," distinguishes itself from previous environmental work in its crossing of disciplines, specifically, art, environmental design, and architecture, in its mobilization of different publics within various urban landscapes, and in its sanctioned collaboration with municipal authorities. This chapter proposes that the urban eco-art installation does not simply demonstrate its alignment with pressing ecological issues; rather, it is driven by the urgent need to explain, and thus constitutes an entirely new form of explanatory discourse that places an "eco-message," squarely in the public realm. In this perspective, these eco-art installations in the public realm can help construct personal, social and cultural meanings of place, as urban agents of sustainable change. This chapter presents a series of cases meant to illustrate the increasing worldwide phenomenon of public spaces as hinges for sustainable change in cities.







Figure 1 Figure 2 Figure 3
Figure 1: Olafur Eliasson's Ice Watch. Climate Change artwork at COP21. This event took place at the Place du Panthéon in Paris, from December 3 -12 December, 2015. Source: http://spikeworld.co.uk/olafur-eliassons-ice-watch/

Figure 2: Broadway 1000 Steps (2013) Source: http://marymiss.com/projects/broadway-1000-steps/

Figure 3: Ballard Library, Seattle, Washington, USA, Bohlin Cywinski Jackson, 2005.



Alice JARRY-GIRARD

Artist-researcher and associate professor of Design and Computation Arts at Concordia University and Research Chair - Critical Practices in Materials and Materiality and Associate Director of Milieux Institute, and director of the Milieux Biolab. Montreal. Canada

Dr. Jarry-Girard specializes in site-specific works, art-science practices, socio-environmental design, and tangible media. Jarry's research brings concerns about sustainability, aesthetics, and politics to bear critically upon matters-of-concern regarding urban infrastructure. Examining how materiality - engaged in processes of transformation with site, technology, and communities - provokes the emergence of adaptive forms, her research currently focuses on waste, residual matter, and smart and biomaterials for the built environment.



Brice AMMAR-KHODJA

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Brice is an artist, graphic designer, and PhD student based in Montreal and Paris. Examining the potential of active materials and residual matter, he explores the socio-environmental and political interconnections pertaining to materiality and urban soil pollution. Specialized in digital arts and design, he develops multimedia installations that question the symbolic, spatial, and sensory relationships between humans, environments and anthropogenic residues. Brice is also s co-director of the typography magazine Pied de Mouche. He, creates workshops and educational tools.



Jean-Michael CELERIER

Director of Technological Development at Société Des Arts Technologiques (SAT), Montreal, Canada

Dr. Celerier completed his Post Doctorate research at Concordia University. He interested in art, code, computer music and interactive performance control. He studied software engineering, computer science & multimedia technologies at Université de Bordeaux, and obtained his doctorate on the topic of authoring temporal media in 2018. He develops and maintains a range of free & open-source software used for creative coding, interactive and intermedia art. Most of his work is focused on the ossia platform for which he is the lead developer and which has been leveraged on installations, events and artworks around the world. He organizes events on C++, programming and media art and teaches all sorts of creative coding languages such as PureData, Processing, or OpenFrameworks.



lacqueline BEAUMONT

Research affiliate at Milieux Institute, Concordia University, Canada

Jacqueline is a transdisciplinary biomedia artist and researcher. Her works explore the intersection of new materialism, trans-media theory, and biopolitical pathologies. She uses her background in biology, fibers, and material practices to augment biopolitical corporeality and create futures where bodies, places, environments, technologies can collect and culture togetherness. With a BFA and fellowship status from Concordia University and a gold medal from IGEM 2019.



Matthew HALPENNY

Interdisciplinary Media Lab Director at Word Creation Studio, Canada

Matthew is an interdisciplinary artist from Montréal who works between the milieus of biology and technology. Their current work examines the materiality of our digital information and energy technologies while offering speculative design solutions that deconstruct barriers to accessibility. Drawing inspiration from systems theory and socio-biological ecologies, their artistic practice often takes the shape of bio-technological installation art and networked sensory performances. Within these works Matthew utilize a wide array of mediums including networked electronics, sensors, slime mold, microbial fuel cells, e-waste, and bio-plastics.



Philippe VANDAL

Media artist and Graduate Student Research Assistant, at Milieux Institute the Research Chair in Critical Practices in Materials and Materiality, Hexagram, Speculative Life Biolab, and of the Topological Media Lab., Concordia University, Canada

Philipp's research is at the intersection of technological, ecological, and artistic preoccupations, His work bridges bio-inspired critical design, environmental chemistry, and site-specific tangible media interventions.

KEYWORDS

#AIR #PARTICULATE MATTER #ATMOSPHERIC POLLUTION #FILTERS AND POROUS MATERIALS #BIO-INSPIRED DESIGN #TANGIBLE DATA #SENSING INSTRUMENTS #COLLABORATIVE ART-SCIENCE PRACTICES #RESEARCH-CREATION

MAKING THE INVISIBLE TANGIBLE: JOINT ART-SCIENCE METHODS FOR MATERIALIZING URBAN AIR POLLUTION

In the current ecological emergency context, air toxicity—a felt but invisible milieu—is a growing issue. Particulate matter and gases generated by transport, construction, or industrial activities have significant impacts on human and more-than-human health (Manisalidis et al., 2020; Montréal, 2022; Canada, 2022), raising socio-environmental questions related to accessibility to a healthy environment (Chen, 2011; Graham, 2015; Liboiron, 2021). How to make air pollution tangible? To address this question, the chapter draws on the case of [re]capture (2020-2024), a research-creation project that comprises a gallery installation and a series of outdoor experiments driven by instruments that capture atmospheric data along the Montreal Metropolitan Expressway (Québec, Canada). Through the lens of 'air filtration,' [re]capture explores how data materialization strategies can give shape at once to air's microscopic invisibility and the macroscopic dimension of its issues. Based on bio-materials investigation and data capture in urban settings, the project involves community workshops, a public exhibition, and a comparative study of air monitoring infrastructures across two sites in Montreal and Paris. With filtration approached as an exchange between materials, technologies, researchers, and publics, the chapter explores how this art-science framework involving the study of scientific instruments can decompartmentalize knowledge to generate sensory and sensitive experiences of air pollution, and how artistic objects can be mobilized to co-create new forms of public experimentation and ecological imaginaries. Examining the links between artistic and scientific practices, the built environment, ecosystems, and communities, it seeks to encourage social uses of research-creation.





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Aristofanis is a Montreal-based architect and film animator. He holds a BSc and a BArch from McGill University, an MA in Building Conservation from the University of York, UK, and a BFA, Major in Film Animation, from Concordia's Mel Hoppenheim School of Cinema. He is a PhD student at Concordia University, in the Individualized Program (INDI), under the supervision of Dr. Carmela Cucuzzella, Dr. David Howes, and Prof. Luigi Allemano, pursuing an interdisciplinary research-creation study with the title: Architecture and Film Animation: Understanding the built environment through handmade animation techniques.

Nassim NAGHAVI

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Nassim is an architect and filmmaker with an MA in Urban Design from the University of Toronto, an MA in Professional Arch from the University of Karman, an additional MA in Research in Architecture from the University of Laval (QC), and an MA in Recreation and Leisure Studies from the University of Waterloo. This body of studies served her significantly in making films and developing architectural projects for 10 years, focusing on current cities' social, political, and cultural space. The ever-changing social space of cities is well-depicted in films, and the relevance of films is imperative as a communicative source in stimulating architectural endeavours. Her current research prompted questions about the potency of films in expressing the mobility of urban space.

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Dr. Cucuzzela's research falls within the broad domain of design studies where she investigates questions of sustainable design for urban living. Her varied background and expertise in environmental and social life cycle analysis, in green building rating systems, and in design and architecture, allows her to adopt a framework revolving around design's interrelated dimensions of the cognitive-instrumental, the moral-practical, and the aestheticexpressive forms of conception and discourse. She has two main areas of research. In her CoLLaboratoire research, she seeks to understand how the collaborative design and implementation of interactive art-architecture in public urban spaces can contribute to a critique, deeper understanding, and/or embodiment of sustainable urban, professional, community, and even human practices in the long term. In her second area of research, her interests lie predominantly in responsible design practices with a particular interest in understanding the challenges of accommodating sustainability diagnostic or rating tools such as Life Cycle Assessment (LCA) and LEED (Leadership in Energy and Environmental Design), alongside the creative conceptual exploration that takes place during the design process. She addresses the limits of current sustainability assessment tools as a means to gain a complex understanding of social, cultural and environmental repercussions of design practice.

KEYWORDS

#CITY AND CINEMA #FILM AND ARCHITECTURE #CINEMATIC ARCHITECTURE #POST-MODERN CINEMA #MODERNITY AND FILM

CITIES AND CINEMA: A MUTUAL EVOLUTION

The birth of cinema roughly coincided with the establishment of the modern metropolis. Its ability to capture the fast-paced city and its technological wonders made it the medium par excellence in recording but also expressing urban space and urbanity. The affinity between city and cinema was famously observed by Walter Benjamin, who wrote on the distractive nature of both and was furthered by Siegfried Kracauer, while aptly premised on Georg Simmel's analyses of the modern metropolis. Early filmmakers such as Dziga Vertov and Walter Rutmann (Fig.1) embarked on capturing the city, as their main protagonist, as the moving camera could provide a spectacle out of a variety of locations of any given city. As the modern city offered multilayered, shocking, disruptive, anonymous, and dynamic experiences, so were filmmakers, such as Sergei Eisenstein, emulating them, employing montage, addressing chiefly an urban audience that in turn would anticipate such occurrences in their everyday life.

This mutual interplay between moving image and city continues to this day, as cinema and all of its digital derivatives reproduce and contribute to the formation of the contemporary urban environment. While early film brought together dis- jointed images to serve a unified plot and construct a coherent idea of the city, since the prevailing of post-modernism, urban space in cinema has been continuously fragmented, subverted, and critiqued (Fig.2), exemplifying psychological states of instability, insecurity, and fluidity. The complexity of identities and multiplicity of narratives that often deviate from traditional ideas about gender and age of post-modern cinema are themes that have evolved appropriately into cinema's current digital era, where buildings straddle between live action and CGI while at the same time, today's metropolises dematerialize, as façades turn into movie screens, something already prophesized in earlier futuristic films (Fig.3).

The idea that film not only serves as a window through which one examines space but also as a cultural act that reproduces space and its social dimension is one that echoes the theory postulated by Henri Lefebvre in his seminal work The Production of Space. If one is to accept that film contributes to the knowledge of space as a social entity, then it follows that it is expected to reproduce and ex-pound the process of producing space, especially urban space. This theoretical lens offers cinema a firm place in being an instrument for both analysing and shaping the city.

In fact, such is the vitality of cinema in architectural design that contemporary architects such as Jean Nouvel, Bernard Tschumi, and Rem Koolhaas admit that their architecture follows a cinematic logic (Bruno, 2002; Pallasmaa, 2001). At a larger scale, entire cities that feature prominently in films are also affected significantly by their portrayal as they become part of popular culture and imagination, sometimes painted in grim colours, as in the case of Detroit (Fig. 4), and sometimes mythologized, as in a multitude of cities that have turned into tourist destinations overnight, to the extent of their Disneyfication.

This chapter will delve into these processes further by describing the more visceral ways in which film affects how we experience, appreciate, and produce urban space during the digital era. In a period of accelerated virtualization of space, the expectations of what a city is are blurred, as films and cities seem to merge into virtuality. New cinematic urban experiences may call for new urban forms and spaces and, consequently, new social spaces that will keep life in the city meaningful and sustainable. Meanwhile, while technology is striding forward, there is a revived interest by scholars such as Juhani Pallasmaa and Giuliana Bruno in the haptic qualities of both cinema and architecture that are integral in sensing the material and atmospheric creature that is the city.



Figure 1. Berlin, Symphony of a Great City (1927) by Walter Ruttmann



Figure 2. Playtime (1967) by Jacques Tati, an explicit critique of modern architecture and the international style.



Figure 3. Blade Runner (1982) by Ridley Scott



Figure 4. Only Lovers Left Alive (2013) by Jim Jarmusch. Detroit as a deserted city inhabited by vampires and zombies.



Baron TYMAS

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Dr. Tymas joined Concordia from North Carolina Central University. He has served on advisory panels for many other organizations, including the Jazz Education Network and the NC Arts Council. A Washington, DC native, Baron earned a Master of Music and a Bachelor of Arts in English from Howard University. Baron has received several prestigious awards, including the Fulbright Research Fellowship in 2015. This fellowship allowed him to compose the works featured on his album Montréal. His contributions to jazz education were also recognized when his NCCU jazz combo earned national acclaim. Additionally, his recordings have been highly praised in the jazz community, further solidifying his reputation as a distinguished musician and educator.

KEYWORDS

#UN SDG's #ART AS A CATALYST
#RAISING ENVIRONMENTAL ISSUES AWARENESS

ENHANCING PUBLIC ENGAGEMENT ON SUSTAINABLE DEVELOPMENT THROUGH MULTIDISCIPLINARY ARTS-BASED ACADEMIC PROJECTS

Multidisciplinary arts-based academic projects offer innovative ways to engage the public on sustainability by merging artistic creativity with complex social, economic, and environmental issues. This chapter explores the potential of such projects, using Concordia University's "17 Stations" as a case study. 17 Stations integrates music, theater, immersive storytelling, and virtual reality to present the United Nations Sustainable Development Goals (SDGs) in an interactive and emotionally engaging way. Visitors explore multimedia installations that combine visual, audio, and interactive elements, creating a deeper connection to sustainability challenges. Faculty, students, and designers contribute to a dynamic installation that mirrors jazz's balance between structure and spontaneity, facilitating individual and collective creativity. The project exemplifies how multidisciplinary collaboration, inspired by jazz's improvisational structure, can produce impactful public engagement. Similar initiatives at institutions like MIT and Stanford demonstrate the effectiveness of arts-based projects in raising awareness and fostering action on sustainability issues. By making these complex topics more relatable and accessible, arts-based academic projects have the power to inspire individuals and communities toward more sustainable behaviors and policies, ultimately fostering a greater commitment to global sustainability goals.

PART 3

PARTICIPATORY CITY-MAKING PRACTICES, AND THE ROLE OF HIGHER EDUCATION

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KEYWORDS

#MUNICIPAL GOVERNANCE #CITIZEN ENGAGEMENT
#HIGHER EDUCATION #CIVIC ACTION #YOUTH ENGAGEMENT

CITYSTUDIO: A PARTNERSHIP FRAMEWORK FOR MUNICIPALITIES & POST-SECONDARIES TO COLLABORATE FOR MEANINGFUL POLICY AND QUALITY OF LIFE IMPACTS

Globally, municipal governments are playing an increasingly important role in tackling policy issues such as climate change, public health, affordability, equity, and reconciliation, but they cannot do it alone. Academic institutions, businesses, community organizations, and citizens will be increasingly engaged towards innovative local solutions for our common problems. However, around the world it is uncommon for municipal governments and academic institutions to collaborate in the everyday business of city building. CityStudio aims to close this gap with a proven partnership and policy framework for municipalities and their local academic institutions to strategically collaborate. The central element of the CityStudio model is a permanent project channel between municipalities and their academic institutions for ongoing, relevant, and innovative policy projects to support cities in becoming more inclusive, safe, resilient, and sustainable. Using a collaboration method and project development process refined over 10 years, the model supports the work of municipal staff with innovative, experimental, and outcomes-oriented projects created alongside post-secondary researchers, students, and faculty. Additionally, the model supports the needs of faculty and students by providing research opportunities and work-integrated learning experiences. Importantly, as a highly engaged participant in the global mobilization of youth and leadership, CityStudio creates a pathway for students to become deeply engaged in their education through civic actions. Further, CityStudio has been recognized as a place-based innovation example that is important for governments to consider when developing their climate engagement strategies. One of the essential goals of the model is to facilitate course- and research-based projects that are relevant to the students and faculty, while directly addressing city strategies and challenges. In this way, it is boundary-spanning and increases the capacity of cities to tackle issues through an efficient and reliable problem distribution framework. The model significantly increases the pool of civic problem solvers to now include researchers, faculty experts, students and citizens. This catalyzes a substantial shift in the way municipalities approach strategic planning, towards new forms of public participation and civic engagement. The model fulfills the needs of three stakeholders simultaneously: city staff receive increased capacity and expertise to help solve problems; academic institutions fulfill community engagement goals and students develop valuable skills and professional networks for future employment; and community members are engaged in building their own city through civic action in their neighbourhoods. The foundation of the model is set upon three pillars: 1) the cultivation and maintenance of trust-based relationships; 2) strong buy-in and commitment from leadership through establishment of a multi-year partnership MOU; and 3) project development and accountability led by a trained CityStudio Coordinator who develops relationships and finds project opportunities by following an annual cycle, which consists of five steps:

- 1) Convene city staff. City staff are convened to identify and develop project ideas that further the city's strategic aims. For example, projects to support COVID recovery, increase neighbourhood resilience, decrease mental health stigma, and decrease carbon footprints.
- 2) Match projects with schools. Project areas are developed and matched with academic researchers and faculty, ensuring a strong fit between city needs and faculty expertise.
- 3) Design projects together. Through their credit-based course work, students are mentored to work with city staff to co-create, scope, and undertake projects that directly support city strategies.
- 4) Launch projects in public. Students launch projects in public as experiments, prototypes, pilots, or engagement events.
- 5) Share and scale projects. Results are presented bi-annually at a celebratory showcase inside City Hall, where city staff, faculty, citizens, elected officials, students, and community members connect to discuss how these projects can inform next steps or become permanent solutions.

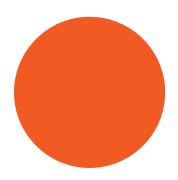
Today, 55% of the world's population lives in cities, a number that is expected to reach 68% by 2050 (United Nations, 2018). City residents are on the frontlines of the numerous problems we are facing this century. The capacity and willingness of city governments and post-secondary institutions to collaborate will be a key factor for our success in confronting these problems and providing the best chance for the long-term vitality of our planet. Operating as a Canadian charity and social franchise, the CityStudio model is available to global municipalities through a subscription and licensing framework that includes partnership administration, training, and network membership. As of November 2021, there are 15 CityStudios across Canada and globally.



Stephanie CHILDS

Project coordinator, Shared Power & Community Engagement at Centre for Social Innovation SHIFT, Concordia University, Canada

Stephanie has a background in conflict transformation, collaborative decision-making and alternative governance developed over a decade of working in food justice movements. With experience in grassroots, community service and national policy levels, Stephanie's perspectives bridge strategic priorities with the reality of front- line work. In her current role as lead on Shared Power and Community Engagement at Concordia University's SHIFT Centre for Social Transformation, she is focused on co-developing organizational structures that are responsive to insight from diverse perspectives and worldviews.



Richenda GRAZETTE

Coordinator, Funding Program at Centre for Social Innovation SHIFT, Concordia University, Canada

Richenda has worked in Montreal's nonprofit sector for 10 years, in both community and philanthropy, before her current position as Funding & Evaluation Coordinator at the SHIFT Centre for Social Transformation. Her passions center around exploring transformative, iterative, and creative approaches to resource (re)distribution, organizational development, and evaluation; all working to align internal processes with values.

KEYWORDS

#SOCIAL TRANSFORMATION #COMMUNITY ENGAGEMENT
#SYSTEMIC CHANGE #JUSTICE #RECONCILIATION
#RECIPROCITY #SUSTAINABILITY #GROUNDEDNESS
#COLLABORATION #COURAGE #HUMILITY

THE SHIFT CENTRE FOR SOCIAL TRANSFORMATION: POWER SHARING AND COMMUNITY LEADERSHIP FOR SOCIAL IMPACT

The SHIFT Centre for Social Transformation is a unique experiment in leveraging institutional resources, knowledge and capacities towards social impact through deep, respectful and mutually beneficial relationships with community partners, organizations and grassroots initiatives. Since its inauguration in 2019, SHIFT has supported and accompanied over 50 multi-stakeholder initiatives that unite the efforts of Concordians and their partners with the goal of creating a more just, inclusive, and broadly prosperous Montreal. Ranging widely in areas of focus, projects tackle systemic issues such as the waste crisis, institutional racism in academia, Black mental health and Indigenous food sovereignty, while offering tangible support to the communities most affected by the social issues.

Engaging SHIFT community members from across and beyond the university in all aspects of decision-making from funding allocation to strategic organizational orientations has played a critical role in developing a diverse and engaged ecosystem committed to systemic change. As SHIFT moves into its fifth year of operations in fall 2023, we look towards accompanying existing project partners in expanding their impact through new institutional and public partnerships, developing strong evaluation models for measuring and communicating about social impact, and sharing what we've learned regarding participatory funding allocation and dynamic governance with partners across the sector.





Dean of the Faculty of Environmental Design at the Université de Montréal, Canada

Dr. Cucuzzela's research falls within the broad domain of design studies where she investigates questions of sustainable design for urban living. Her varied background and expertise in environmental and social life cycle analysis, in green building rating systems, and in design and architecture, allows her to adopt a framework revolving around design's interrelated dimensions of the cognitive-instrumental, the moral-practical, and the aestheticexpressive forms of conception and discourse. She has two main areas of research. In her CoLLaboratoire research, she seeks to understand how the collaborative design and implementation of interactive art-architecture in public urban spaces can contribute to a critique, deeper understanding, and/or embodiment of sustainable urban, professional, community, and even human practices in the long term. In her second area of research, her interests lie predominantly in responsible design practices with a particular interest in understanding the challenges of accommodating sustainability diagnostic or rating tools such as Life Cycle Assessment (LCA) and LEED (Leadership in Energy and Environmental Design), alongside the creative conceptual exploration that takes place during the design process. She addresses the limits of current sustainability assessment tools as a means to gain a complex understanding of social, cultural and environmental repercussions of design practice.



Jean-Pierre CHUPIN

Canada Research Chair in Architecture, Competitions and Mediations of Excellence at Université de Montréal

Dr. Chupin coordinates the inter-university team of the Laboratoire d'étude de l'architecture potentielle (L.E.A.P). He has published extensively on analogical reasoning, design competitions, awards of excellence, design thinking, qualitative processes, architectural judgment, criticism and imagination. An expert on design competitions and systems of awards, he is chief editor of two online databases of contemporary projects and buildings: the Canadian Competitions Catalogue (CCC) (www.ccc.umontreal.ca) and the Archives of Exemplarity in Architecture and the Built Environment (AREA)(https://architecture-excellence.org). Since 2022, he is the scientific director of the research partnership: Quality in Canada's Built Environment: Roadmaps to Equity, Social Value and Sustainability. Funded by the Social Sciences and Humanities Research Council of Canada until 2027, this intersectoral project brings together 14 universities, 70 researchers and 68 public and private organizations at the municipal, provincial and national levels. An active member of several EDI committees, his initiatives have an impact in setting up inter-university teams and in mobilizing citizens and professionals to implement the highest quality of the built environment in Canada.

KEYWORDS

#SUSTAINABLE DESIGN #ENVIRONMENTAL DESIGN #ECO DESIGN #DESIGN& ARCHITECTURE #URBAN DESIGN #COLLABORATIVE DESIGN #INTERACTIVE DESIGN #LIFE CYCLE ASSESSMENT (LCA) #INCLUSIVE DESIGN

COMPETITIONS AS MEANS FOR AN ALTERNATIVE DEVELOPMENT IN THE CITY

The history of environmental design has shown many different iterations in its aim to address the earth's degradation. From the ecologically technical beginnings of the 1960s and 1970s, to the growing technological apparatus of the 1980s and 1990s, and to the development of the social and cultural as leverage for the benign treatment of the earth, each one seeks to mitigate the continued devastation of the natural environment. This chapter argues that we have now reached a stage in which design needs to mobilize civil society to engage with the immanent urban issues of climate change and spatial justice.

In the last five decades, the imperatives of environmentalism and sustainability have, in turn, significantly changed design practices. However, the history of environmentalism and design have not been as linear as it may seem, even if we can already identify three stages so far. In the 1960s, the drive towards holistic approaches of public and individual human settlements gave rise to the idea of environmental design, as a means to transcend the boundaries between various design disciplines: architecture, landscape, urban and product design (Sanoff & Cohn, 1975).

This first "environmentalism" culminated, amongst other manifestations, in the formation of the Environmental Design Research Association (EDRA) in 1968. In the 1970s, environmentalism started to shift towards an ecological ideology soon dominated by technical solutions (Naess, 1973; Jonas, 1985). This technological turn, which we consider as a second stage of environmental design, was driven by highly structured principles in the search for resource efficiency and pollution prevention (Madge, 1997; Tischner et al., 2000; Fletcher & Goggin, 2001; Birkeland, 2002). At the turn of this century, the technological emphasis for efficiency systematically developed throughout the 1980s and 1990s started to reveal its limitations, particularly through the development of prescriptive methods (Parsons, 1995; Papanek, 2000; Orr, 2002; Cucuzzella, 2009). This normative approach is considered here as the third stage of environmental design and architecture (Cucuzzella, 2019). These methods for addressing the environmental concerns through management methods became quite a divergence from the deep systemic research and experimentation of the late 1960s and early 1970s (Olgyay, 1963; Fuller, 1968; Rapoport, 1969; Papanek, 1971; Naess, 1973). Facing a problematic integration of cultural dimensions, this approach revealed a contradictory opposition between form and meaning, between aesthetics and ethics (Thorpe, 2007; Fry, 2009; Brouwer et al., 2012).

Numerous scholars now underline that these missing inter-subjective dimensions may be compromising the very idea of a holistic environmentalism in various realms of knowledge and action (Spector, 2001; Kohler, 2003; Fisher, 2008; Kagan, 2010). We have already seen that the social and cultural realms can provide leverage towards more sustainable modes of living (Orr, 2002; Kagan, 2010). A fourth stage of environmental design may be achievable through a collaborative, yet didactic approach. We adopt the 'ideas' design competition format as a means to address the potential next phase of 'responsible' design, a term described by Jesse Tatum in 2004 (Tatum, 2004).

How can the design or architecture competition provide a means for increased community participation in the development of a sustainable built environment, by providing knowledge exchange opportunities between community, academia, and municipal planners?



Figure 1: Jury deliberation with a community representative mix of jurors held on April 10, 2017.





Morteza HAZBEI

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Morteza is currently working on reconciling contextual design and parametric design. He is working on energy performance, visual comfort, and holistic optimization in parametric design. He Completed his M.A in architecture at the Art University of Isfahan, Iran. He has a wide range of progressive experience in comprehensive projects integrating architectural design and engineering optimization.

Burcu OLGEN

Ph.D. Individualized Program (INDI) Candidate at Concordia University, Canada

Burcu is an Architectural Designer, course instructor, and PhD candidate at Concordia University majoring in Design and Computation Arts. Currently, she is working as a remote course instructor at Isik University's Interior Design Department giving courses such as Furniture Design, Design for All, Form-Texture-Color, and Living Tomorrow: Smart Buildings. Her scholarly work is mainly focused on Al-augmented interactive eco-didactic experiences in the public realm. She also works on gamification, design theory, and interdisciplinary relations in design.

KEYWORDS

#SELF-LEARNING #BUILT ENVIRONMENT #LIVABILITY #ECO DIDACTICISM #THERMAL COMFORT

ENHANCING TEACHING AND LEARNING EXPERIENCES IN BUILT ENVIRONMENT ABOUT SUSTAINABILITY THROUGH INTERACTIVE APPROACHES

Although the importance of teaching sustainability in the built environment has been widely recognized, effectively addressing these complex, subjective, and qualitative topics remains a challenge. To navigate this complexity, visual and interactive approaches offer promising avenues for promoting sustainability education in the built environment. Interactive methods, including gaming, have demonstrated effectiveness in conveying intricate concepts in an engaging manner to diverse audiences. However, the effectiveness of these approaches in imparting knowledge about sustainability and engaging individuals remains a subject of inquiry. This research aims to explore various interactive methods for sustainability education, investigating their similarities and differences in participant engagement. To achieve this, three interactive approaches/games are examined as case studies, analyzing their engagement levels, structural components, agency involvement, and adoption of systems thinking models. The findings indicate that clarity of messaging and providing clear guidance to players enhance the learning experience. Additionally, ease of navigation, step-by-step clarity, and re-playability are identified as crucial factors across all three cases. Games based on real scenarios, especially those familiar to players, have a positive impact on the learning process. Furthermore, it is observed that none of the three cases have fully integrated a system thinking approach into their platforms, suggesting that incorporating such a framework could enhance teaching and learning experiences.







NEXT-GENERATION

